

REMARKS AND ARGUMENTS

Applicant requests reconsideration of the Election/Restriction requirement in view of the this amendment and the foregoing remarks. Applicant has canceled claims 1-9, 11-12, and 14-15. Claims 10, 13, 16-18 are currently amendment. New dependent claim 19 is added and depends from claim 10. Applicant has not added new matter and respectfully requests entry of the foregoing Amendment. Claims 10, 13, 16-18, and 19 are pending.

Name of Inventor

The correct spelling of the inventor's name is as follows: **Killian Dill**.

Claim Amendments

Claims 1-9 are canceled in view of the Election/Restriction requirement.

Dependent claims 11-12 are canceled, and a portion of the subject matter of those claims is recited in independent claim 10 with respect to the capture molecules being formed by *in situ* synthesis using electrochemical techniques.

Dependent claims 13 and 16-18 are currently amended to provide better form and to correct typographical errors.

Dependent claims 14-15 are canceled, and a portion of the subject matter of those claims is recited in independent claim 10 (i) with respect to the enzymatic moiety being attached to the target molecules through a combination selected from the group consisting of an antibody and anti-idiotypic antibody combination, a biotin and streptavidin binding combination, a biotin and avidin binding combination, and combinations thereof and (ii) with respect to the microarray having a plurality of addressable electrodes being covered by a porous reaction layer attached to the addressable electrodes and having a plurality of capture molecules attached to the porous reaction layer at sites over the electrodes, wherein the porous reaction layer has a thickness of approximately 0.1 microns to approximately 10 microns.

Claim 10 is currently amended to recite subject matter from canceled claims 11-12 and 14-15 and is currently amended to add the limitation of "wherein the porous reaction layer

allows electrochemically-generated protons to contact the capture molecules.” Support is in the art cited on page 2 and in the disclosure on page 8. Further, the limitation of wherein electrophoresis is not used to attach the plurality of capture molecules at the sites corresponding to the electrodes is added to distinguish over prior art. Claim 10 has further amendments to provide better form, to provide clarity, and to correct a typographical error.

Election

Applicant elects Group III claims 10-13 and 15-18 without traverse.

Species Elections

With respect to List I identified by the examiner, applicant elects *in situ* synthesis with electrochemical techniques as is now recited in claim10.

With respect to List II identified by the examiner, applicant elects horseradish peroxidase with traverse. Although the enzymes are of a different name, the enzymes provide the same function to the invention, namely, an electrical signal by chemical reaction with the substrate to detect target binding. To restrict the invention to one enzyme unduely narrows the scope of the invention to be not commensurate with the disclosure in the specification. Moreover, the number of enzymes is not so great as to create an undue search burden.

With respect to List III identified by the examiner, applicant elects Dextran with traverse. Any porous reaction layers will work in the invention provided *in situ* electrochemical synthesis can be performed thereon. To restrict the invention to one reaction layer unduely narrows the scope of the invention to be not commensurate with the disclosure in the specification. Moreover, the number of reaction layers is not so great as to create an undue search burden.

With respect to List IV identified by the examiner, applicant elects oligonucleotides.

With respect to List V identified by the examiner, applicant elects single-stranded DNA with traverse. Since the probe molecules are elected as oligonucleotides, this list should include DNA, RNA, single-stranded DNA, Ribosomal RNA, and Mitochondrial DNA since these all have similar chemical functionality as oligonucleotides. Moreover, the number of additional species is not so great as to create an undue search burden.

Claim 10 reads on all elections. Claim 13 reads on List II election. Claim 16 reads on List III election. Claim 17 reads on List IV election. Claim 18 reads on List V election. Claim 10 reads on new claim 19 and thus claims 10 and 19 in combination read on all elections.

In view of the foregoing amendment and the remarks and arguments, applicant respectfully requests reconsideration of the restriction requirement imposed upon this pending application and examination of all the pending claims as well as entry of the foregoing amendment.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "MD Vrbanc", with a long horizontal flourish extending to the right.

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